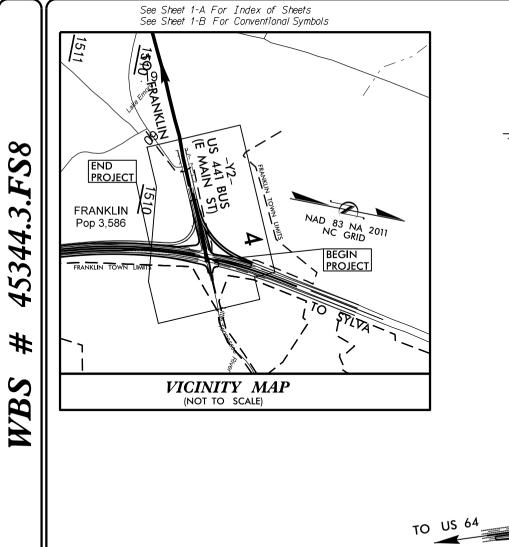
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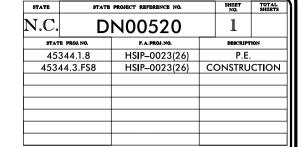
This file or an individual page shall not be considered a certified document.

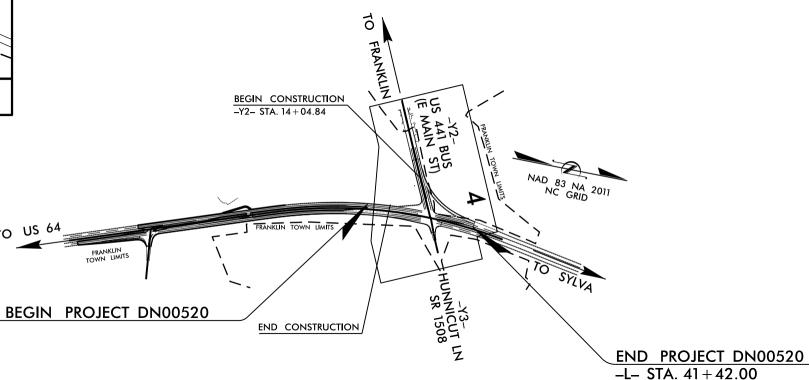


STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

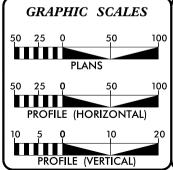
MACON COUNTY

LOCATION: US 441 BUSINESS TO US 23-441 TYPE OF WORK: GRADING, PAVING, SIGNING, TRAFFIC CONTROL, AND PAVEMENT MARKINGS









DESIGN DATA ADT 2012 = 19,000D = FUNC CLASS =

STATEWIDE TIER

V = 60 MPH* TTST = DUAL PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY PROJECT DN00520

= 0.25 MILES

PLANS PREPARED BY: DIVISION OF HIGHWAYS 191 ROBBINSVILLE RD ANDREWS NC 28901

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FEBRUARY 2, 1973

LETTING DATE: MAY 23, 2017

ANDY RUSSELL, PE

ALAN R. BROWN

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

SIGNATURE:



1//3

INDEX OF SHEETS

EROSION CONTROL PLANS

SHEET NUMBER	SHEET
1	TITLE SHEET
1 -A	INDEX OF SHEETS. GENERAL NOTES. AND LIST OF STANDARD DRAWINGS
1 –B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND DETAILS
3	GUARDRAIL SUMMARY SHEET
4	PLAN SHEETS
PMP-1 & PMP-4	PAVEMENT MARKING PLANS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

EC-1 THUR EC-5

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – N. C. Department of Transportation – Raleigh. N. C.. Dated January. 2012 are applicable to this project and by reference hereby are considered a part of these plans:

Drainage Ditches with Class 'B' Rip Rap

PROJECT REFERENCE NO. 45344.3.FS8

> OADWAY DESI ENGINEER

SHEET NO.

GENERAL NOTES:

2012 SPECIFICATIONS EFFECTIVE: 01-17-12 REVISED: 07-30-12

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN. THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SAFETY CLEARING:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE AREAS IN THE PLANS DESIGNATED SAFETY CLEARING. THE LIMITS ARE AS SHOWN OR AS DIRECTED BY THE ENGINEER AND THE CLEARING AND GRUBBING IS CONSIDERED A PART OF THE LUMP SUM ITEM FOR "GRADING".

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS. STREETS. AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, FRONTIER COMMUNICATIONS, TOCCOA NATURAL GAS, MORRIS BROADBAND CABLE, AND TOWN OF FRANKLIN.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

tain AT 0146AD277129 een in Lone totaaste ook eigen totaan at 1146AD277129

876.04

*S.U.E. = Subsurface Utility Engineering

CONVENTIONAL PLAN SHEET SYMBOLS ROUNDARIES AND PROPERTY

DOUNDAMILS AND TROILERTS	•
State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin	<u></u>
Property Corner	
Property Monument	 ECM
Parcel/Sequence Number —	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	wlb
Proposed Wetland Boundary	
Existing Endangered Animal Boundary ——	
Existing Endangered Plant Boundary	EPB
Known Soil Contamination: Area or Site —	
Potential Soil Contamination: Area or Site —	
	000
BUILDINGS AND OTHER CULT	
Gas Pump Vent or U/G Tank Cap	— o
Sign Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building —	_ Ļ
School —	— ф
Church —	— <u>ф</u>
Dam	
HYDROLOGY:	
Stream or Body of Water —	
Hydro, Pool or Reservoir —	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream —	•
Spring —	-8
Wetland	- ¥
Proposed Lateral, Tail, Head Ditch ————	_ >>>>
False Sump	FLOW
ruise somp	_

Standard Gauge —————	CSX TRANSPORTATION		
RR Signal Milepost ————————————————————————————————————	CSX TRANSPORTATION MILEPOST 35	Orchard —	\$ \$ \$ \$ 6
Switch —		Vineyard ————————————————————————————————————	Vineyard
RR Abandoned —————	SWITCH	EVICTING OTHIOTHERS	
RR Dismantled		EXISTING STRUCTURES:	
RIGHT OF WAY:		MAJOR:	
Baseline Control Point	•	Bridge, Tunnel or Box Culvert	
Existing Right of Way Marker —————	\wedge	Bridge Wing Wall, Head Wall and End Wall -) CONC WW (
Existing Right of Way Line		MINOR: Head and End Wall ——————————————————————————————————	CONC HW
Proposed Right of Way Line		Pipe Culvert —	
n I no I . Cour II . II	_	Footbridge>	
Iron Pin and Cap Marker			
Proposed Right of Way Line with Concrete or Granite R/W Marker ————		Drainage Box: Catch Basin, DI or JB	
Proposed Control of Access Line with		Paved Ditch Gutter	
Concrete C/A Marker		Storm Sewer Manhole Storm Sewer	
existing Control of Access	———(<u>Ē</u>)——	Storm Sewer	s
Proposed Control of Access ——————————————————————————————————		TIME TAKE	
Existing Easement Line ————————————————————————————————————	——Е——	UTILITIES:	
roposed Temporary Construction Easement –	Е	POWER:	1
roposed Temporary Drainage Easement ——	TDE	Existing Power Pole	•
roposed Permanent Drainage Easement ——	PDE	Proposed Power Pole	þ
roposed Permanent Drainage / Utility Easement-	DUE	Existing Joint Use Pole	-⊕-
roposed Permanent Utility Easement ————	PUE	Proposed Joint Use Pole	-
roposed Temporary Utility Easement ————	TUE	Power Manhole	(P)
roposed Aerial Utility Easement ——————	AUE	Power Line Tower	
Proposed Permanent Easement with	_	Power Transformer —	\square
Iron Pin and Cap Marker	③	U/G Power Cable Hand Hole	
ROADS AND RELATED FEATURES	S :	H-Frame Pole	•—•
Existing Edge of Pavement —————		Recorded U/G Power Line	
existing Curb		Designated U/G Power Line (S.U.E.*)	
Proposed Slope Stakes Cut ————		TELEPHONE:	
Proposed Slope Stakes Fill	F		
roposed Curb Ramp —————		Existing Telephone Pole	-
xisting Metal Guardrail —————		Proposed Telephone Pole —	-0-
roposed Guardrail —————		Telephone Manhole	①
xisting Cable Guiderail ————		Telephone Booth)
roposed Cable Guiderail		Telephone Pedestal	T
quality Symbol ——————	•	Telephone Cell Tower	.
Pavement Removal ——————	\bowtie	U/G Telephone Cable Hand Hole ———	HH
VEGETATION:		Recorded U/G Telephone Cable ———	
iingle Tree ————	සි	Designated U/G Telephone Cable (S.U.E.*)—	
iingle Shrub ————	٥	Recorded U/G Telephone Conduit	
ledge ———		Designated U/G Telephone Conduit (S.U.E.*)	
Woods Line ————	-ىزى-ىزى-ىزى-ىزى-	Recorded U/G Fiber Optics Cable ————————————————————————————————————	

Orchard —	සි සි සි සි
Vineyard —————	Vineyard
EXISTING STRUCTURES:	
MAJOR: Bridge, Tunnel or Box Culvert ———— [CONC
Bridge Wing Wall, Head Wall and End Wall -	J conc ## (
MINOR: Head and End Wall ——————————————————————————————————	CONC HW
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB —	СВ
Payed Ditch Gutter	
Storm Sewer Manhole —	S
Storm Sewer ———————————————————————————————————	_
UTILITIES:	
POWER:	
Existing Power Pole ————	lack
Proposed Power Pole —	6
Existing Joint Use Pole —	
Proposed Joint Use Pole —	-6-
Power Manhole ————	P
Power Line Tower	\boxtimes
Power Transformer ————	\square
U/G Power Cable Hand Hole —	
H-Frame Pole	••
Recorded U/G Power Line	Р
Designated U/G Power Line (S.U.E.*)	P
TELEPHONE:	
Existing Telephone Pole ————	-•-
Proposed Telephone Pole —	-0-
Telephone Manhole	T
Telephone Booth —	3
Telephone Pedestal ————	
Telephone Cell Tower —	₩,
U/G Telephone Cable Hand Hole ———	HH
Recorded U/G Telephone Cable ———	т
Designated U/G Telephone Cable (S.U.E.*)—	
Recorded U/G Telephone Conduit —	
Designated U/G Telephone Conduit (S.U.E.*)	
Recorded U/G Fiber Optics Cable ———	

WATER:	
Water Manhole	W
Water Meter	0
Water Valve	\otimes
Water Hydrant	. \$
Recorded U/G Water Line ————	
Designated U/G Water Line (S.U.E.*)	
Above Ground Water Line —	A/G Water
TV:	
TV Satellite Dish	N./
TV Pedestal —	8
	_
Iv lower ————	\otimes
U/G TV Cable Hand Hole ——————	
Recorded U/G TV Cable ————	
Designated U/G TV Cable (S.U.E.*)———	
Recorded U/G Fiber Optic Cable ———	
Designated U/G Fiber Optic Cable (S.U.E.*)—	- — — TV F0— — —
GAS:	
Gas Valve	\Diamond
Gas Meter	♦
Recorded U/G Gas Line —	
Designated U/G Gas Line (S.U.E.*)	
Above Ground Gas Line	A/G Gas
SANITARY SEWER:	
Sanitary Sewer Manhole	(4)
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line ——————	
Above Ground Sanitary Sewer ————	
Recorded SS Forced Main Line	
Designated SS Forced Main Line (S.U.E.*) —	FSS
MISCELLANEOUS:	
Utility Pole —	•
Utility Pole with Base —	

Utility Located Object ----Utility Traffic Signal Box —— Utility Unknown U/G Line ----U/G Tank; Water, Gas, Oil —

Geoenvironmental Boring — U/G Test Hole (S.U.E.*) ——

End of Information ——

Underground Storage Tank, Approx. Loc. —

A/G Tank; Water, Gas, Oil —

Abandoned According to Utility Records —

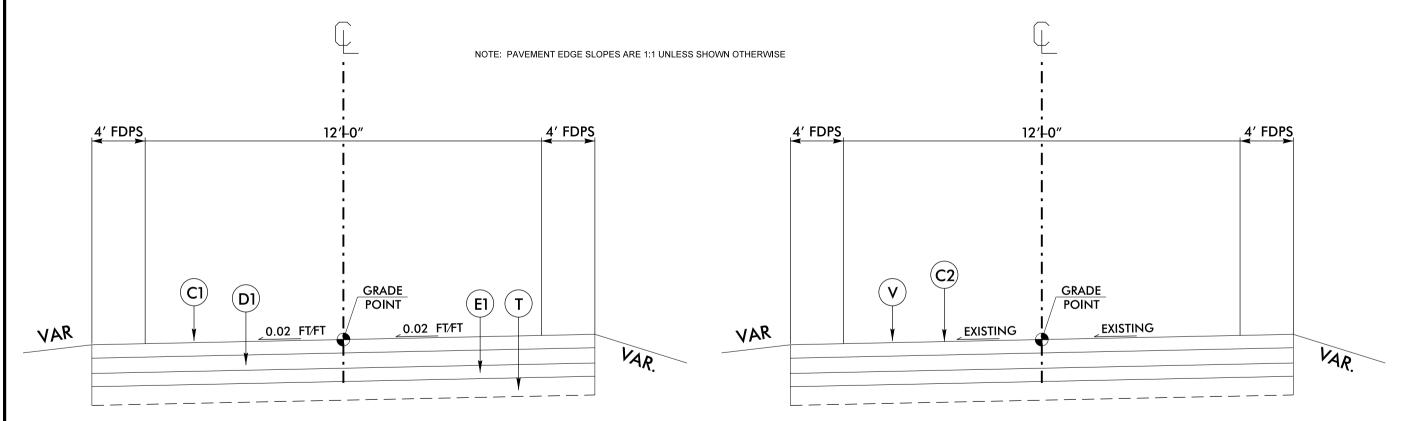
UST

AATUR

E.O.I.

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)									
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 336 lbs/sy.	D1	PROP APPROX 4" CONCRETE INTERMEDIATE COURSE, TYPE I19.0B AT AN AVERAGE RATE OF 456 lbs/sy	E1	PROP APPROX 4" CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 456 lbs/sy				
Т	EARTH MATERIAL	V	1.5" MILLING	C2	PROP. APPROX 1.5" ASPHALT CONCRETE SURFACE SOURSE, TYPE S9.5B AT AN AVERAGE RATE OF 168 LBS/SY				

PROJECT REFERENCE NO	SHEET NO.	
WBS*: 45344.3.F	2	
ROADWAY DESIGN ENGINEER		



TYPICAL SECTION NO. 1

-Y2- Sta 16+45 TO Sta 19+60 SLIP LANE GOING WEST BOUND

TYPICAL SECTION NO. 2

-Y2- Sta 19+60 TO Sta 16+45 EXISTING SLIP LANE INTO TOWN

3:02 NJ 0000520 Cat Creek Turn Lane\DNØ0520 Cat Creek\DGN AT D146AD37313 COMPUTED BY: ARB DATE: MARCH 2017 CHECKED BY: ARB DATE: MARCH 2017

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO SHEET NO. 45344.3.8

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.

TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.

FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.

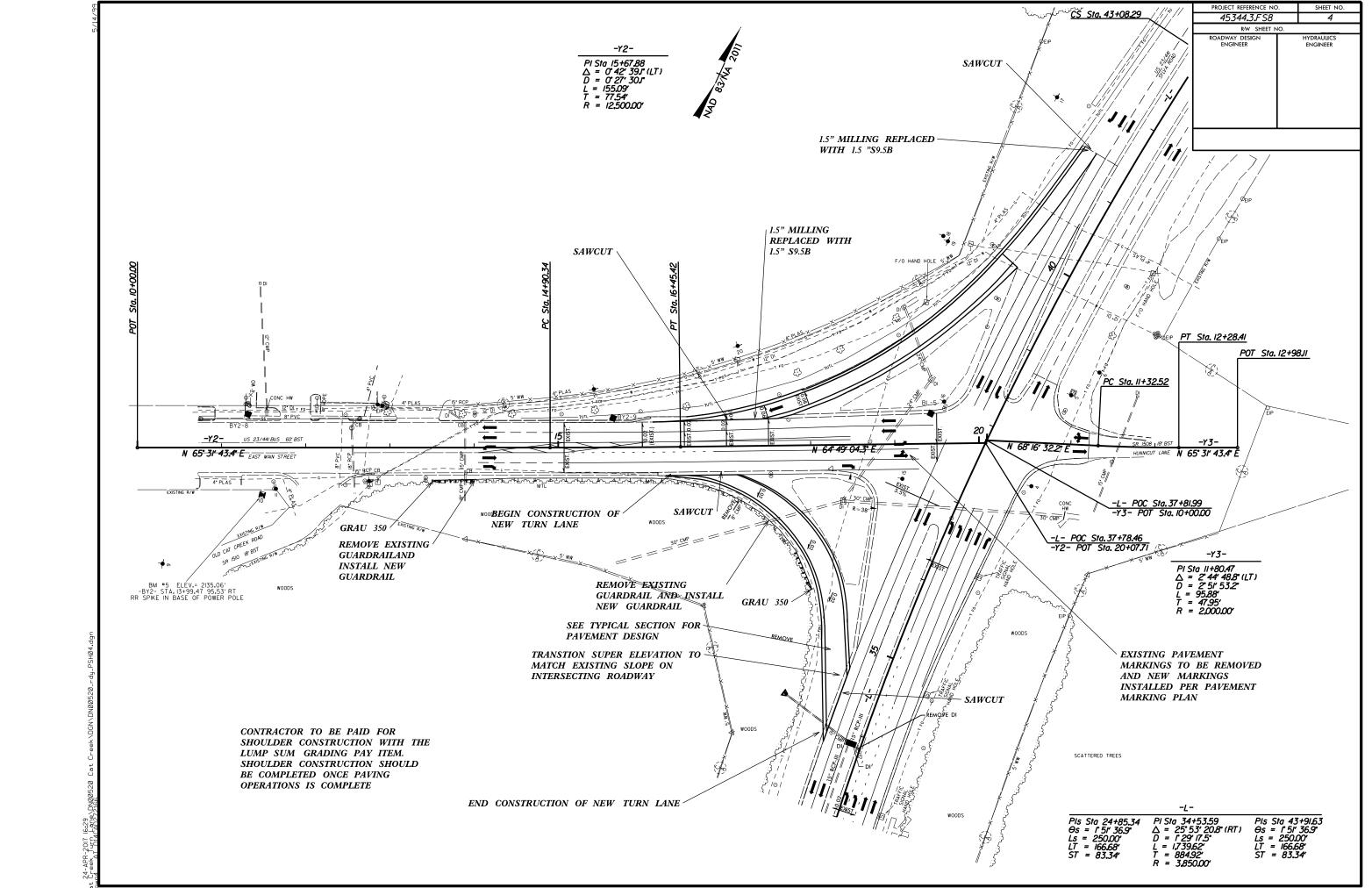
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.

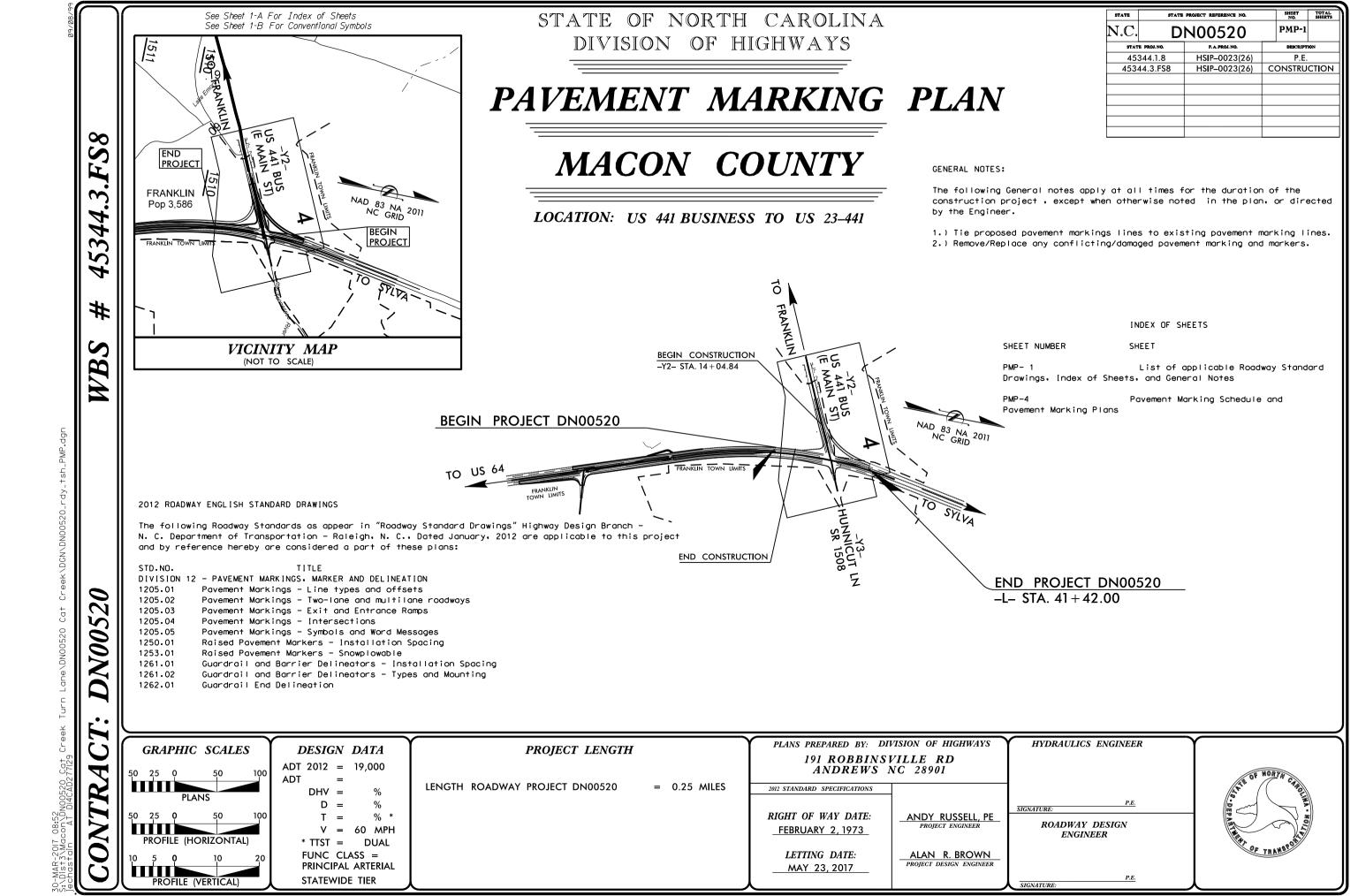
G = GATING IMPACT ATTENUATOR TYPE 350

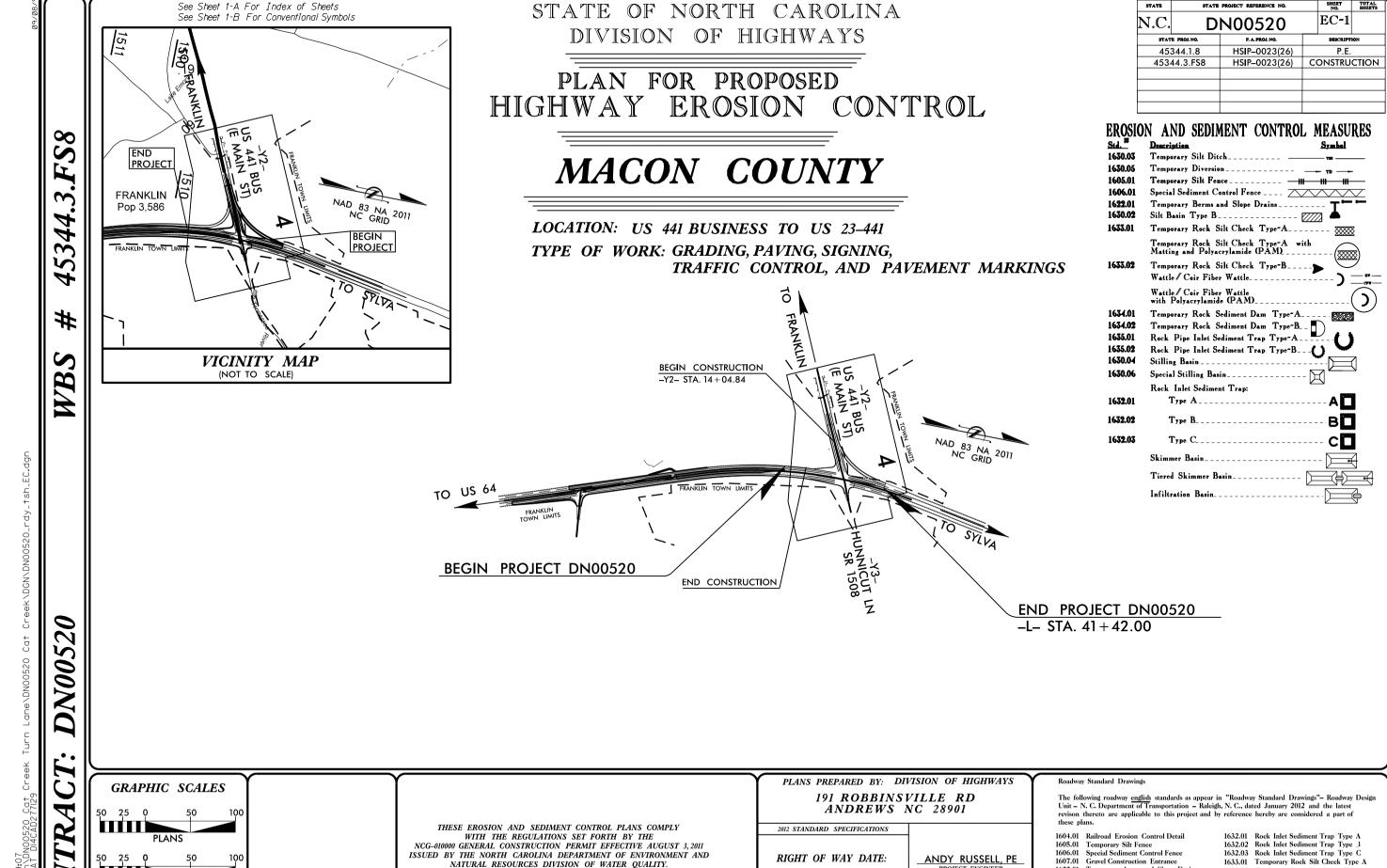
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

NG = NO	N-GATING IMPACT A	TTENUATOR TYPE 350	0																									
SURVEY LINE	DEC CTA	FND CTA	LOCATION		LENGTH		WARRA	ANT POINT	"N" DIST.	TOTAL FLARE LENGTH		FLARE LENGTH		w	ANCHORS						IMPAG ATTENUA TYPE 3	CT ATOR S	SINGLE FACED	REMOVE	REMOVE AND STOCKPILE			
LINE	BEG. STA.	END STA.	LOCATION	STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END	FROM E.O.L.	SHOUL. WIDTH	APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	ΧI	GRAU 350	M-350	XIII	CAT-1	VI VOD	BIC AT-1	EA G	- GL	FACED UARDRAIL	GUARDRAIL	EXISTING GUARDRAIL	REMARKS
-Y2-	13 + 50	17 + 75	RT	425																			2					
-Y2-	13 + 50	17 + 75	RT																							425		







FEBRUARY 2, 1973

LETTING DATE:

MAY 23, 2017

1622.01 Temporary Jerms and Slope Drains 1630.01 Riser Jasin

1630.02 Silt Jasin Type J 1630.02 Sitt Jasin Type 3 1630.03 Temporary Silt Ditch 1630.05 Temporary Diversion 1630.06 Special Stilling Jasin 1631.01 Matting Installation

ALAN R. BROWN

1633.02 Temporary Rock Silt Check Type 3

1634.01 Temporary Rock Sediment Dam Type A
1634.02 Temporary Rock Sediment Dam Type A
1635.01 Rock Pipe Inlet Sediment Trap Type A
1635.02 Rock Pipe Inlet Sediment Trap Type A
1640.01 Coir Fiber 3affle

PROFILE (HORIZONTAL)

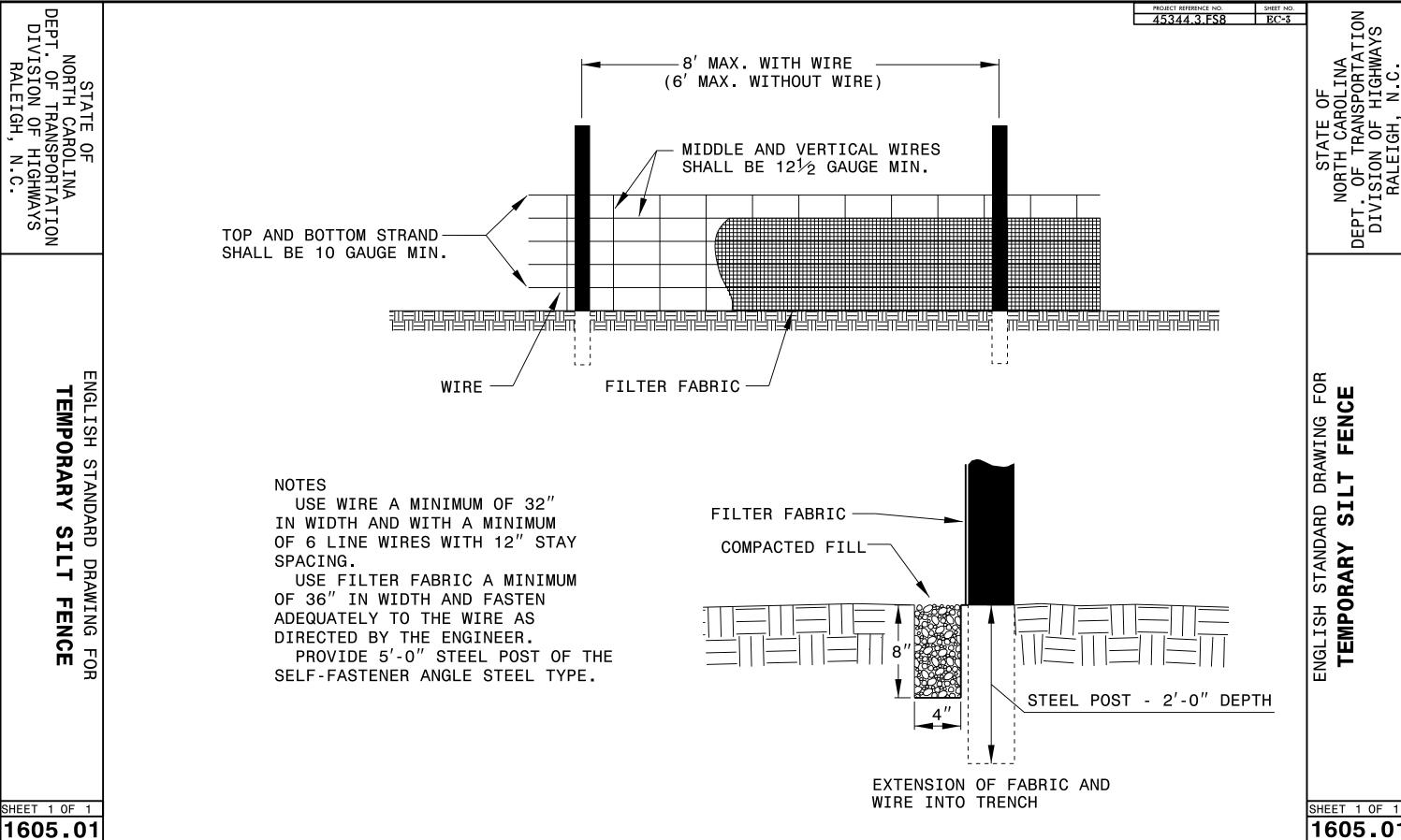
PROFILE (VERTICAL)

SHEET NO. SHEET NO. SHEET NO. SHEET NO.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	I4 DAYS	7 DAYS FOR SLOPES GREATER THAN 50'IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	I4 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.



1605.01

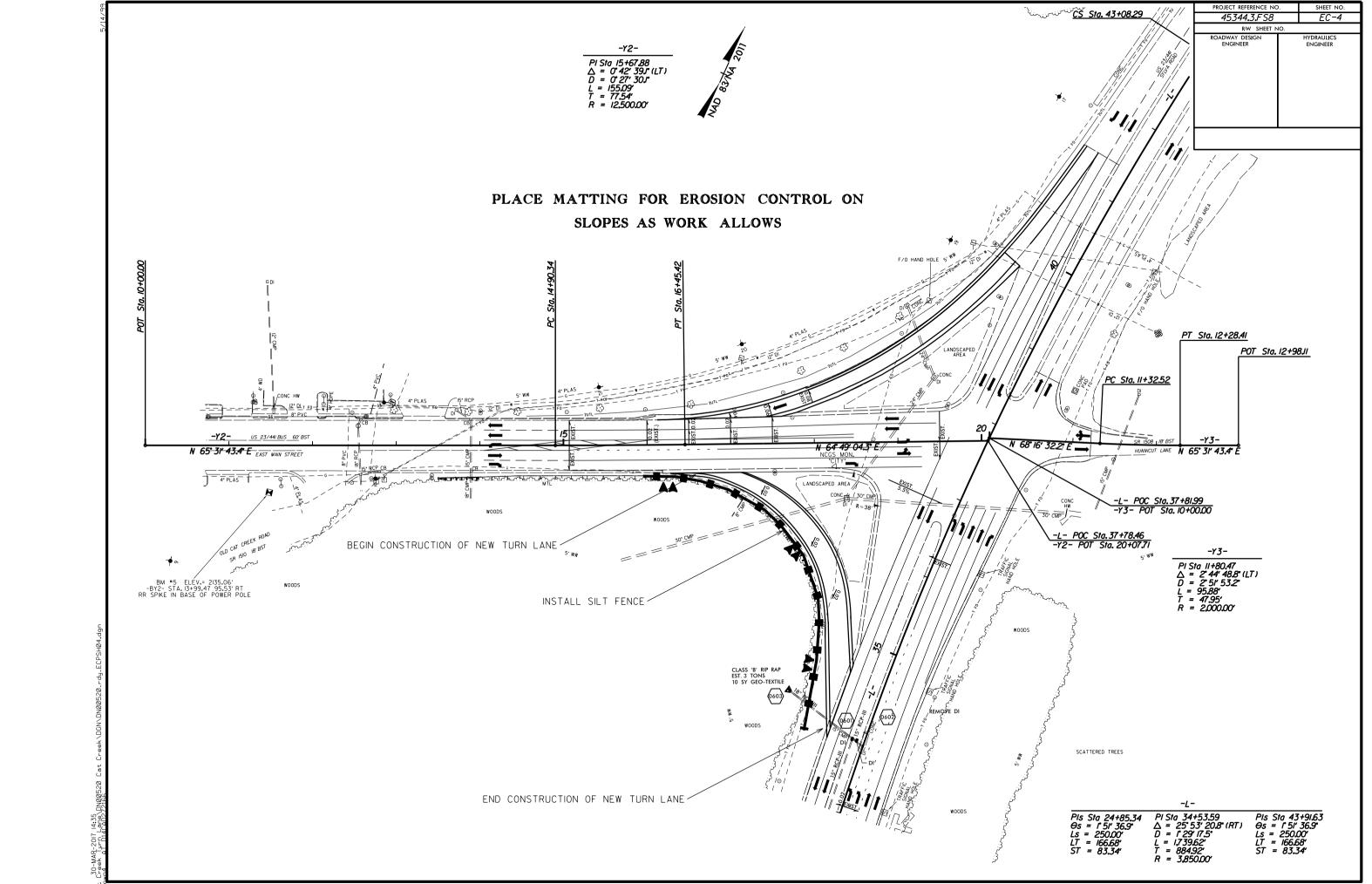
LION

DEPT

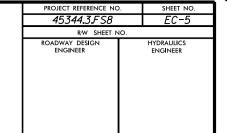
FENCE

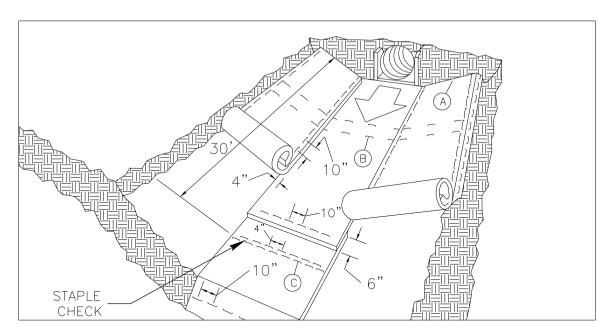
SILT

TEMPORARY

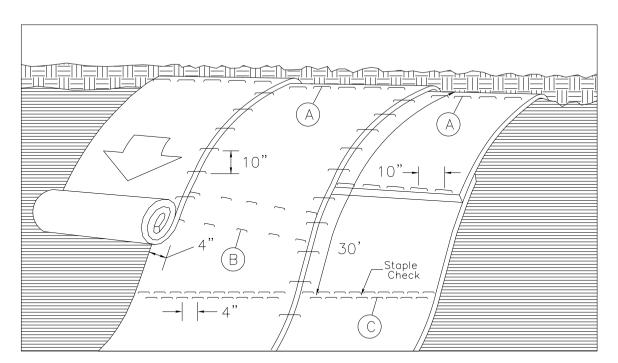


MATTING INSTALLATION DETAIL





MATTING IN DITCHES



MATTING ON SLOPES

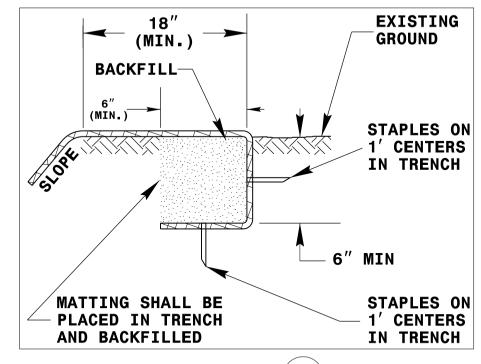
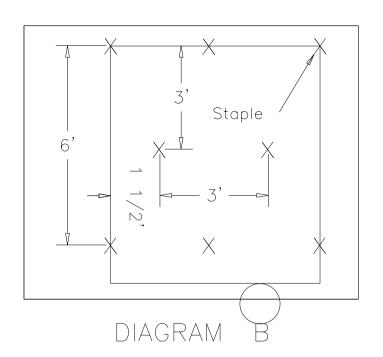
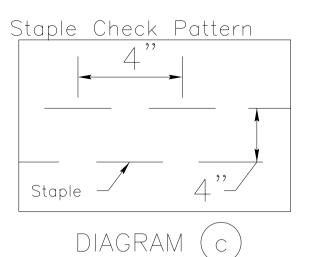


DIAGRAM (A)





NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.